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Supplemental Information Report

The Tenakee Inlet spawn-on-kelp fishery and the potential effects of the small drive-down ramp and floating camp in Crab Bay on the fishery

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INTRODUCTION

This report is intended to display new information about the Finger Mountain Timber Sale(s) Final Environmental Impact Statement raised during the appeal process. Its primary objectives are to show new information and to discuss the consequences of actions on the spawn-on-kelp (SOK) fishery and the use of the small drive-down ramp.

SCOPE OF THIS REPORT

The Alaska Board of Fisheries adopted regulations in 2003 that established a commercial SOK fishery in Tenakee Inlet. The Appeal Deciding Officer determined the effects of the proposed reconstruction of the log transfer facility, the new drive-down ramp, and the floating logging camp (as described in the Finger Mountain Timber Sale(s) Record of Decision) on this new SOK fishery had not been adequately addressed in the analysis done for the Finger Mountain Timber Sale(s) Final Environmental Impact Statement (FEIS). The information regarding the SOK fishery was unavailable when the FEIS was prepared. This report provides information of those effects and builds upon the discussion of herring spawning as addressed in the FEIS. It includes a discussion of a) the possible effects of operating the ramp, the loading facility, and the floating camp on spawning herring and the commercial SOK fishery and b) potential mitigation measures.

BACKGROUND

A Notice of Intent (NOI) to prepare an environmental impact statement (EIS) for the Finger Mountain Timber Sale(s) Project was published in the Federal Register in June 1997, and two additional NOIs were published in July 1997 and May 1999 when changes were made to the proposed action. The Draft EIS was released for public comment in January 2000.

On June 20, 2003, the Tongass Forest Supervisor signed the Record of Decision (ROD) for the project. The Selected Alternative for the Finger Mountain Timber Sale(s) Project (Alternative B) authorizes the harvest of approximately 1,027 acres (about 21.4 million board feet [MMBF]), the construction of about 9.8 miles of new system road and 10.9 miles of temporary road, and the reconstruction of about 13.8 miles of existing road. A temporary drive-down ramp log transfer facility (LTF) will be constructed at the approved Inbetween Creek site in Tenakee Inlet. A bulkhead for barge use and a small drive-down ramp intended to facilitate small sales will be reconstructed at the existing site at the mouth of Crab Bay.

The Southeast Alaska Conservation Council (SEACC) (on behalf of SEACC and the Chichagof Conservation Council [CCC]) and the Sitka Conservation Society (SCS) appealed the ROD. The Center for Biological Diversity and the Juneau branch of the Sierra Club; SEACC and CCC; and the Wilderness Society submitted interested party comments. The Appeal Deciding Officer determined that the analysis in the Final EIS and documentation in the project record were sufficient to support the Forest Supervisor's

decision with respect to the issues raised in these appeals. However, new information has surfaced regarding new SOK fishery in the area.

Concurrent to these events, the Sitka Ranger District is in the process of obtaining a permit for the log transfer facility. On December 3, 2003, the Forest Supervisor sent a letter to the Alaska Department of Natural Resources, Office of Project Management and Permitting, objecting to the proposed response for the permit. The Forest Supervisor explained that the Forest Service was currently analyzing the issues related to the SOK fishery to determine whether additional environmental analysis needs to be done. He further explained that any mitigation measures intended to respond to effects to the SOK fishery would be developed in consultation with the appropriate State Agency.

The following analysis was undertaken in response to the appeal issue of whether the Finger Mountain EIS adequately analyzed the potential effects of the proposed LTFs and the floating logging camp, given the new information regarding the SOK) fishery and a commitment to the State to work with them as described in the December 3, 2003 letter. Although the Appeal Reviewing Officer found no reason to conclude that the Selected Alternative may affect the SOK fishery, the recommendation was that the Forest Supervisor consider the potential effects of the small drive-down ramp and floating logging camp in Crab Bay on that fishery and that he take appropriate action based on the results of that analysis. This report responds to the recommendations of the Appeal Reviewing Officer.

There is an existing LTF site in the Inbetween area that has been permitted since 1994. This site has been inactive for a number of years. Only traces of the original facility remain at the beach end of the existing road due to the effects of time and wave action. While this site could have been reconstructed as part of the Finger Mountain project, the IDT chose to consider an alternative site in response to the concerns that had been expressed relating to the potential effects associated with the existing site. The new approved site is situated on a reef between the existing site and the mouth of Inbetween Creek. This site has good flushing action due to currents and tides, so bark accumulation is not anticipated (Final EIS, p. 3-89; see also NMFS comments on the LTF location, planning record document number FM12a446). Based upon a review of the Final EIS and the project record, the Appeal Reviewing Officer determined that the potential effects related to the use of the new site had been adequately considered.

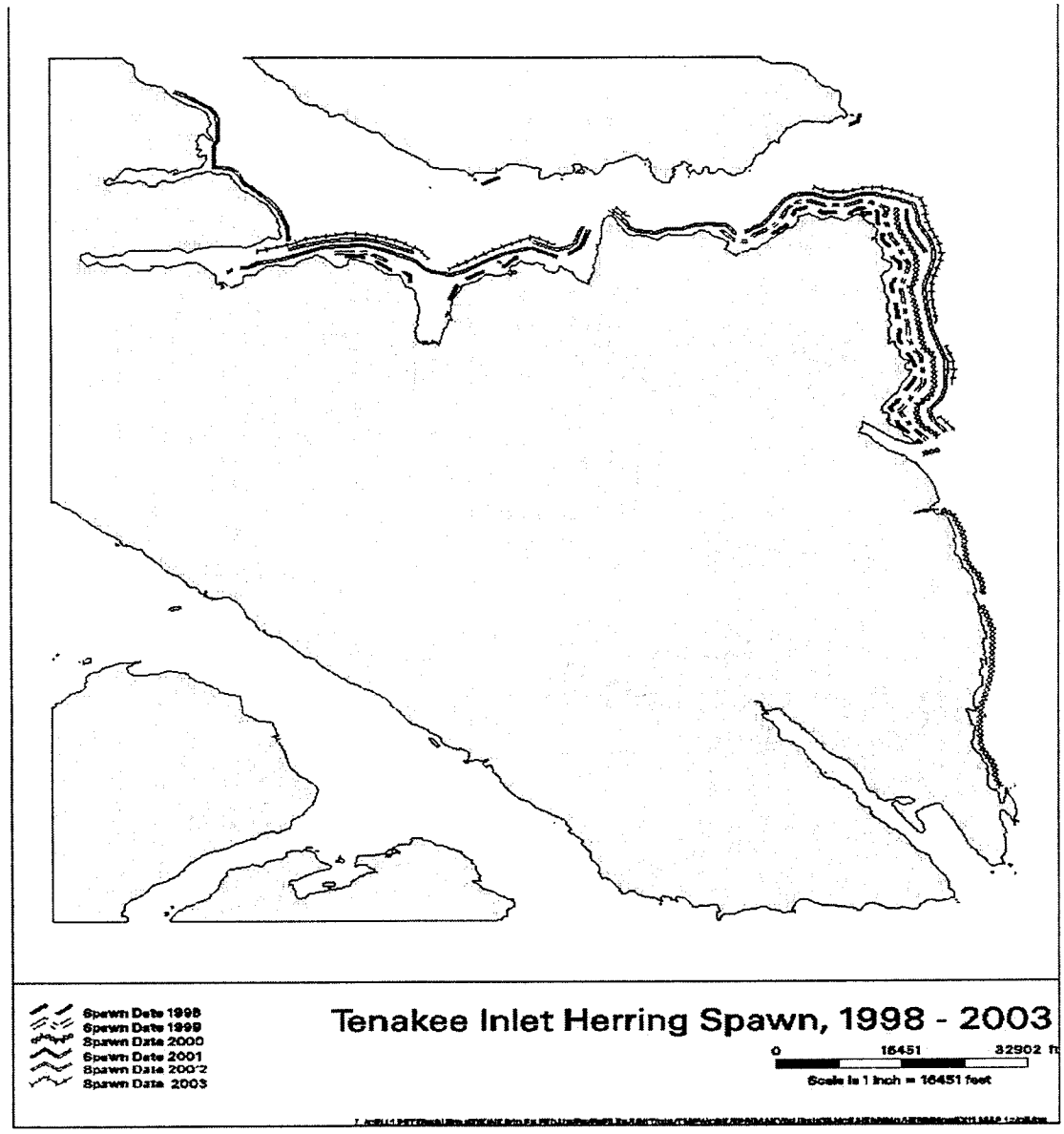
Appellants asserted that the Alaska Board of Fisheries approval of the SOK fishery in Tenakee Inlet subsequent to the publication of the Finger Mountain Timber Sale(s) Draft EIS is new and significant information relevant to the potential effects of both the small drive-down ramp and the increased boat traffic associated with the floating logging camp at Crab Bay. The Final EIS identifies Tenakee Inlet as a major herring stock area in Southeast Alaska and discloses that a bait fishery has occurred in the area in the past (Final EIS, p. 3-90). The EIS also acknowledges that herring spawn was documented by ADF&G along the shoreline at or near the Crab Bay LTF site [Id]. Therefore, it is reasonable to conclude that the Forest Supervisor recognized the importance of the Crab Bay area for herring spawn and considered the potential effects of the small drive-down

ramp and the increased boat traffic on the herring that spawn in the Crab Bay area. However, the EIS does not specifically address the new SOK fishery and what, if any, effects the use of a small drive-down ramp or increased boat traffic may have on the SOK fishery (or conversely, what effect the SOK fishery may have on the operation and use of the LTF and floating logging camp).

SUMMARY OF NEW CIRCUMSTANCES AND INFORMATION

The Tenakee Inlet herring stock is one of the major herring populations in Southeast Alaska and is very important to the health of a variety of the Region's marine mammals, fish, and birds. Juvenile herring rear and winter throughout Tenakee Inlet, and adult herring use the inlet for spawning and wintering. Herring spawning activity can vary widely over time and area but generally occurs on the southern shore of Tenakee Inlet near the mouth of the inlet. The area between Crab Bay and Kadashan is considered one of the core spawning areas and typically accounts for a much higher density of herring eggs than most of the other beach areas that may receive spawn (Figure 1). Typically there are about 10 miles of beach where herring spawn during the last week of April each year with a total adult population of between 5,000 and 10,000 tons of herring. There is a long history of using this stock for personal use and commercial bait (Alaska Department of Fish and Game, 2003 [see Appendix A for this document]).

Figure 1. Tenakee Inlet Herring Spawn



In 2003 the Alaska Board of Fisheries adopted regulations that allowed a new herring SOK fishery. The fishery consists of either open or closed pounds, each operated by one or more permit holders. Open pounds are fairly mobile structures without netting that allow the free flow of herring. Macrocystis kelp is suspended within these pounds, and the pounds are moved to locations with actively spawning herring. Closed pounds are floating enclosures approximately 20 feet in length on each side. A net is hung from the structure so that herring can be introduced into the pound but cannot escape. Blades of macrocystis kelp are suspended in the open area within the pound, and herring are allowed to spawn on the kelp. Once the herring finish spawning they are released from the pound. For both open and closed pounds, the kelp blade with attached herring eggs is the product that is harvested, salted, and sold.

There are several physical constraints associated with operating the pound structures. Satisfaction of these criteria is necessary for a successful fishery.

1. The pounds must be located very near the location where herring are preparing to spawn.
2. Open pounds are mobile and can be moved to take advantage of spawning areas, but closed pounds are not mobile once filled with kelp and herring. Closed pounds become mobile again after the spawn on kelp is harvested.
3. Pounds must be securely held in place with a series of anchors and/or shorelines.
4. Pounds are very vulnerable to damage from wave and tidal action and must be located in sheltered areas. However, pounds cannot be allowed to come in contact with the bottom, so deep water is necessary.
5. Spawn on kelp is very sensitive to contamination by pollution and siltation. Any amount of petroleum products or sedimentation in the water column during the time that the kelp is in the pound with eggs attached will result in a spawn-on-kelp product with zero value.
6. Closed pounds contain herring eggs after the SOK harvest. These structures remain on site and in the water for several weeks to allow the remaining herring eggs to hatch.

The magnitude of the spawn-on-kelp fishery is controlled by two factors. The first is the size of the adult spawning population (the greater the population size the greater the harvest quota), and the second is the amount of herring allocated to the fishery. In Tenakee Inlet, the total annual harvest is divided so that the bait fishery (conducted during the winter with seine gear) harvests 90 percent of the commercial fishing quota, and the bait pound (tray pack or live bait) fishery harvests 10 percent. The SOK fishery is allocated any remaining quota that is not taken by either of the bait fisheries. This harvest sharing arrangement was established by the Alaska Board of Fisheries and may be amended every three years. If the total herring allocation for the SOK fishery is less than 50 tons, then the fishery will not open. If the total herring allocation for the SOK fishery is greater than 50 tons but less than 100 tons, only open pounds are allowed. For herring allocations greater than 100 tons, both open and closed pounds are allowed.

Currently there are 112 limited entry permit holders eligible to participate in the SOK fishery for the northern Southeast Alaska area. During 2003 (the first year of the fishery), 55 permit holders operated 24 closed pounds in Tenakee Inlet. The total herring allocation amounted to 140 tons. The fishery was open between April 6 and May 6, although actual herring harvest operations occurred only on April 26, 27, and 28. The SOK fishery harvested about 90,000 pounds of spawn on kelp with an ex-vessel value of approximately $500,000. Due to the success of the fishery, it is anticipated that additional fishermen may participate in future years.

ANALYSIS AND EVALUATION OF THE SPAWN-ON-KELP FISHERY

In accordance with the 1997 Tongass National Forest Land and Resource Management Plan, LTFs are required to undergo a permitting process (see Appendix G of that document). Information documenting herring spawning locations within the Tenakee Inlet area and information about the 2003 SOK fishery was obtained from the Alaska Department of Fish and Game. Publications of particular interest include:

- *Northern Southeast Herring Spawn-on-Kelp Pound Fishery, 2003 Management Plan, RIR IJ03-16*
- *ADFG News Release NR 031703*, and
- *ADFG News Release NR 050603.*

These documents are attached in Appendices A, B, and C.

There are several factors of interest in the evaluation of the potential effects of the ramp, camp, and log loading facilities on the SOK fishery.

The first consideration is that there is no guarantee that the fishery will occur in future years. The herring spawning stock did not reach the minimum population threshold to allow a commercial fishery in six different years since 1980. Economic conditions associated with either the seine bait fishery or the pound (tray pack) bait fishery may allow those fisheries to harvest the fishing quota. Since there is no separate fishing quota for the SOK fishery, a successful bait fishery means the cancellation of the SOK fishery.

The second consideration is that if and when the SOK fishery is authorized, there is no guarantee that the area near Crab Bay will be utilized by herring for spawning. If the Crab Bay area does not hold significant amounts of pre-spawning herring, the fishery will occur elsewhere.

The third consideration is that unless the herring quota exceeds 100 tons, the fishery will be restricted to open pound structures only. Because of their mobility and the close proximity of potential sources of pollution near the camp, open pounds would not be located near enough to the logging support structures to be affected by logging operations.

The fourth consideration is that the fishery regulations and herring allocations are not necessarily static. The Alaska Board of Fisheries can change them every three years. An increase in the SOK allocation would result in a much higher probability that a closed pound fishery would occur. Higher fishing quotas would increase the number of fishermen and pounds.

CONCLUSIONS

The location of the pounds used in the closed pound SOK fishery cannot be restricted to a small geographical area; for a successful fishery, all the area normally used for spawning must be made available for the fishery. Spawning herring do not occur in exactly the

same location and with the same intensity each year, so there is some degree of uncertainty where pounds will be located.

Herring are sensitive to disturbance and may adjust spawning locations due to noise or harassment. Construction activities in other locations have moved herring spawning locations considerable distances. Construction activities that involve driving piling or filling near shore areas with rock as the herring are staging will likely prevent the area from being used by herring for spawning in that year. However, the effect of herring spawning in one location as compared to another is unknown. Adequate analysis has not been completed in Tenakee Inlet to determine which spawning locations are the most important to future recruitment. The ROD requires timing restrictions on the reconstruction of the LTF at Crab Bay, which should mitigate the effects on herring spawning during such construction activities.

If herring stage and spawn near the mouth of Crab Bay in sufficient amounts to conduct a closed pound fishery, the movements of log barges and disturbance of fine sediment by the tow vessel may jeopardize the success of the fishery. The location of the camp, its operation, and the operation of the drive down ramp may not affect the use of the area by spawning herring. However, the risk of pollution may influence the fishermen's use of closed pounds in the areas near the camp and ramp.

The potential effects of timber sale related operations on herring staging and spawning activities are restricted to the local marine waters during the time herring stage and spawn. The same holds true for the effects of operations on the SOK fishery. These are displayed in Table 1, Consequences of Operations. Operations that cause a disturbance in marine areas and occur prior to mid-April or after mid-May would have no effect on the fish or the fishery.

If additional mitigation were deemed necessary to further reduce the risk to the SOK fishery, an effective measure would be to restrict the use of the ramp and log barge facility by towboats with barges when the closed pounds are located within 500 meters of these facilities. This restriction would only be in effect during the time when herring are present in the pounds until the SOK has been harvested, a time period normally lasting about 10 days. This policy would protect the SOK fishery yet be flexible enough to have a minimal impact on timber sale related operations.

Table 1. Consequences of Operations

Activity	Factors Governing the Activity	Potential Effects on the SOK Fishery	Restrictions to Mitigate Potential Effects
Use of the drive-down ramp	Use would be limited to small sale operators for moving small amounts of logs.	If fishery hasn't started but logs are put in the water, herring may spawn on logs AND the area in which pounds could be placed is limited. This activity may affect the SOK fishery or pound structures if logs and pounds occur in close proximity.	Siting distance for pounds, jurisdiction of State. (500 meters based on ADF&F recommendations. Open and closed pounds)
Use of the bulkhead	Primary use would be tugs and barges for large sale operations. Typically tugs move barges to and from the bulkhead only once or twice a week.	Disturbance from movement of the tug and barge to and from the bulkhead. Potential effect is to the use of open or closed pounds.	Siting distance for pounds, jurisdiction of State. Prohibit tug and barge traffic during the time when herring are present until the time the spawn- on kelp is harvested (a period of approximately 10 days when herring are present in the pounds or spawn on kelp is in the pounds).
Boat traffic to and from the floating camp and/or barge/ramp facility	Traffic would be limited to small crafts during active timber sale operations.	Boat traffic would not be greater than the traffic associated with the SOK fishery. Therefore, this activity is not likely to affect the fishery.	No restrictions are needed on boating traffic.

In summary, the effect on herring spawning by use of the ramp, camp and bulkhead is dependent on the amount of disturbance generated by these activities during the two weeks herring are staging on the spawning grounds preceding the spawning event and during the 1-week herring are actively spawning. The greater the amount of use and intensity of activity, especially by larger vessels or heavy equipment, the greater the chance that herring will be displaced from the area near the facilities. A similar condition exists for the effect on the pound fishery through use of the ramp and bulkhead. If the herring pound fishery occurs near the facilities then there is an increasing opportunity for negatively impacting the fishery if logs are rafted or tow vessels are in close proximity to the pounds. The area of disturbance is restricted to that portion of the marine waters within 500 meters of the ramp or bulkhead and the window of vulnerability restricted to approximately 1 week, the time between when herring are introduced into the pounds and the product harvested.

The actual effects are unknown. Without being able to define what might as a result of these activities, one cannot define the effects. A mechanism to prohibit barge traffic if adverse effects are observed could limit effects to SOK fishery.

APPENDIX A

APPENDIX B

APPENDIX C